Decision No. C04-0994

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

DOCKET NO. 04A-325E

IN THE MATTER OF THE RENEWABLE ENERGY REQUEST FOR PROPOSALS PORTION OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR APPROVAL OF ITS 2003 LEAST-COST RESOURCE PLAN.

ORDER APPROVING THE RENEWABLE REQUEST FOR PROPOSALS, WITH MODIFICATION

Mailed Date: August 24, 2004
Adopted Date: August 11, 2004

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I. BY THE COMMISSION

A. Introduction to Docket No. 04A-325E

1. This matter comes before the Commission for consideration of the application by Public Service Company of Colorado (Public Service or Company) for approval of its Renewable Energy Request for Proposal (Renewable RFP). In this application, the Company proposes to issue an RFP for competitive solicitation and acquisition of up to 500 MW of renewable energy, primarily wind energy. Public Service now requests that the Commission approve the proposed Renewable RFP including the evaluation criteria (for submitted bids) set forth in Volume 2 of 2003 Least-Cost Energy Plan (LCP).

2. After Commission notice of the application, a number of parties intervened and actively participated in this case including: the Rocky Mountain Farmers Union (RM Farmers Union); CF&I Steel, LP and Climax Molybdenum Company (jointly CF&I); the Colorado Independent Energy Association; the Colorado Energy Consumers (CEC); the Colorado Coalition for New Energy Technologies (CCNET); the North American Power Group, LTD; BACA Green Energy, LLC and Prairie Wind Energy, LLC; Western Resources Advocates; the Colorado Renewable Energy Society; the Colorado Mining Association; the City of Boulder

(Boulder), the Colorado Office of Consumer Counsel (OCC); and Staff of the Colorado Public Utilities Commission (Staff). We conducted hearings in this matter on August 4 and 6, 2004, and heard oral statements of position on August 9, 2004. Now being duly advised, we grant the application consistent with the discussion below.

B. Statement of the Case

3. Originally, the Renewable RFP was simply one component of Public Service's proposed 2003 LCP. The Company, in accordance with the Commission's Electric Least-Cost Planning Rules, 4 *Code of Colorado Regulations* 723-3, Rules 3600-3615 (LCP Rules), filed its application for approval of its 2003 LCP on April 30, 2004; that application is now pending before the Commission in Docket No. 04A-214E.[1] In general, the components of the proposed 2003 LCP include:

- Acquisition of approximately 3600 MW over the next ten years;
- Acquisition of a 750 MW rate-based coal plant (Comanche 3);
- Issuance of an All-source RFP for competitive solicitation of approximately 2850 MW; and
- Issuance of the Renewable RFP for competitive solicitation of up to 500 MW of renewable energy, primarily wind.

4. Notably, in its LCP application, Public Service requested that we review and approve the renewable energy portion of the plan (*i.e.*, the Renewable RFP) on an expedited schedule. According to the LCP application, Congress is now considering proposed legislation that would renew federal production tax credits for qualified renewable energy, such as wind energy. However, if renewed, the federal tax credits necessary for cost-effective wind

[1] Also on April 30, 2004, Public Service filed an application for a certificate of public convenience and necessity to construct the Comanche 3 unit, a 750 MW coal plant (Commission Docket No. 04A-216E), and an application for Commission approval of a special cost recovery mechanism for Comanche 3 costs (Commission Docket No. 04A-215E). Pursuant to a motion by Public Service, the Commission consolidated Docket Nos. 04A-215E and 04A-216E with Docket No. 04A-214E.

resource development will likely expire on December 31, 2006. In order to qualify for the credits, wind facilities must be fully constructed and delivering energy prior to that deadline. The Company's resource screening analysis (for the 2003 LCP) indicated that all least-cost planning scenarios included additional wind priced at levels taking advantage of the tax credits. The LCP further explained that completion of wind development may take as long as two years. Therefore, the Company proposed to issue the Renewable RFP by July 15, 2004.

5. In its Motion for Expedited Approval of the Renewable Energy RFP (filed on May 25, 2004 in Docket No. 04A-214E), Public Service reiterated its request for accelerated consideration and approval of the renewable energy component of the 2003 LCP. The motion proposed a procedural schedule resulting in a Commission decision on the Renewable RFP by July 14, 2004. In Decision No. C04-0548 (May 26, 2004), we set a prehearing conference on July 7, 2004 for the limited purpose of considering the Company's request for expedited consideration of the renewable portion of the proposed LCP. The decision directed interested parties to respond to Public Service's motion by June 15, 2004.

6. We conducted the prehearing conference on the appointed date. At the conference, we granted the Company's request for expedited review of the renewable portion of the 2003 LCP. Specifically, in Decision No. C04-0739 (July 6, 2004), we: (1) granted Public Service's request for separate (from the other components of the 2003 LCP) consideration of the Renewable RFP; (2) severed the issues relating to the proposed Renewable RFP from Docket No. 04A-214E and set those issues for hearing and decision in the instant docket (04A-325E); and (3) established an accelerated procedural schedule, including hearings beginning August 4, 2004, for this docket. Pursuant to that procedural schedule, the intervenors filed their direct testimony on July 23, 2004, and Public Service filed its rebuttal testimony on August 2, 2004.

We conducted hearings in this case on August 4 and 6, 2004. The parties orally presented their statements of position at hearing on August 9, 2004.

7. We now approve Public Service's Renewable RFP consistent with the discussion below.

C. The Proposed Renewable RFP

8. In general, Public Service requests approval of its proposed RFP for the solicitation of up to 500 MW (nameplate capacity) of renewable energy generation resources. Public Service also requests approval of certain criteria to evaluate bids submitted in response to the RFP. According to the criteria, no capacity value will be ascribed to any intermittent resource, such as wind. The Company requests approval of a proposed standard for choosing bids: the selected renewable portfolio should be projected to reduce net present value (NPV) of system energy costs over the planning period. Notably, Public Service requests a Commission determination that the decision in this proceeding will be final and legally binding. That is, Public Service opposes the suggestion (*e.g.*, by Staff) that the renewable portfolio, selected pursuant to the decision in this case, be subject to further analysis based upon our later decision on the 2003 LCP (in Docket No. 04A-214E). According to this suggestion, after all resources have been selected based upon review of the entire LCP, the Company must perform a study to determine whether the renewable portfolio, along with all other selected resources, is actually the least-cost plan (*i.e.*, the selected portfolio minimizes NPV of rate impacts).

D. Early Release of Renewable RFP; Compare with All-source Bids

9. Public Service proposes to release the Renewable RFP before the All-source RFP, and then evaluate the Renewable RFP bids separately from the evaluation of the All-source bids.

10. Witness Dr. Schmitz states that Staff is not opposed to the early release of the Renewable RFP, as long as the Commission requires Public Service to compare the accepted Renewable RFP bids with the All-source bids after they are received. If that comparison indicates that the selected renewable portfolio increases the NPV rate impacts, the shift of the burden of proof in Rule 3613(d) would not occur. Staff proposes this study to determine whether the accepted Renewable RFP resources minimize the NPV of rate impacts, as required by Rule 3610(f), when compared to the All-source resources. Rather than comparing individual bids, Staff proposes that Public Service model the accepted All-source portfolio with, and without, the total portfolio accepted under the Renewable RFP. If the NPV of rate impacts increases when the Renewable RFP portfolio is added, Public Service would have the burden of proving the prudence of its selections in a future cost recovery proceeding. If the comparison shows that the Renewable RFP portfolio decreases the NPV rate impact, Public Service would not be required to carry the burden in a future cost recovery proceeding, consistent with Rule 3610(f).

11. In rebuttal, witness Eves states that Public Service disagrees with Staff's proposed requirement to compare the bids accepted under the Renewable RFP with those accepted under the All-source RFP. According to the Company: Public Service proposed the separate Renewable RFP to improve the opportunity to reduce fuel and purchased energy costs to benefit customers by allowing bidders to meet the deadline for the Federal Production Tax Credits (PTCs). Public Service should not be required to take on the risk of cost recovery to pursue a plan that is intended to reduce customer costs. The plan proposed by Public Service does not compromise the integrity of the LCP process. By accepting only Renewable RFP bids that lower

rates, without any capacity credit, Public Service's proposal complies with the intent of the LCP Rules – to acquire least-cost resources.

12. Public Service states there is only a small chance that resources selected in the Renewable RFP could later prove to be uneconomic. Witness Eves raises three possible circumstances where these resources could be uneconomic. These involve changes in evaluation criteria, unexpectedly low-cost bids, or changes in transmission expansion plans. Further, Public Service states that the LCP Rules do not prescribe mathematical precision; the Rules even direct utilities to incorporate reliability considerations and financial and development risks in minimizing NPV of rate impacts. Public Service argues that the timing of the PTCs for wind generation presents financial and development risks that warrant the accelerated renewable solicitation.

13. Finally, Public Service argues that Staff's proposed "post-mortem" study violates the prudence review standard contained in Rule 3613(d), that prudence must be judged based on information known, or should have been known, at the time a decision was made. Staff proposes to compare the earlier-selected Renewable RFP resources with the later-selected All-source bids. As such, Staff would consider information not known at the time Public Service accepted the renewable bids. Witness Eves states that the Commission should either grant Public Service's proposed Renewable RFP without the hindsight comparison proposed by Staff, or deny the early release of the Renewable RFP.

14. Parties have presented three options for the Commission to consider: deny the proposal for a separate Renewable RFP; grant the stand-alone Renewable RFP as proposed by Public Service; or adopt Staff's recommendations to require an evaluation of the selected Renewable RFP bids after the All-source portfolio is established.

15. We agree with Public Service that if the Federal PTC legislation passes the early issuance of the Renewable RFP would likely result in implementation of wind energy projects that will reduce customer rates. Therefore, early issuance of the Renewable RFP is worth pursuing, if implementation issues can be resolved.

16. Staff is correct that the burden shifting language in Rule 3613(d) is linked to the utility comparing all resources in the selection of the least-cost portfolio. The LCP Rules direct the utility to develop a plan to compare resources in order to acquire the least-cost portfolio, and shift the burden of proof in cost recovery proceedings if the utility follows the approved plan. We agree with Staff that the Rules are designed to accommodate multiple RFPs, but each solicitation should be an All-source bid where all resources are afforded an opportunity to bid, and all resources are compared to determine the least-cost portfolio.

17. A "set-aside" solicitation, where a certain amount of a specific type of resource (*e.g.*, renewables) is solicited at any price, would clearly violate the intent of the rules. However, Public Service has not proposed a set-aside, but proposes to accept only those bids that reduce rates. Furthermore, the extraordinary reason for an expedited and separate Renewable RFP is the timing of the potential federal PTC legislation. Public Service's proposal for an early renewable bid does not meet the letter of the multiple bid solicitation provisions contained in the LCP Rules. The question is whether Public Service's rate-reduction criteria provides adequate assurance to the Commission that the resources selected in the early Renewable RFP would be least-cost resources if all resources were bid and evaluated at the same time, and thus meet the intent of the LCP Rules.

18. One problem with Staff's proposal is that, under a multiple-solicitation plan where separate All-source RFPs are issued at different times, it may not be reasonable to require

that the same evaluation criteria be used for each RFP. Gas price forecasts, for example, change over time and could reasonably be expected to change between two solicitations. In the plan proposed by Public Service, forecast gas prices could change from the time it issues the Renewable and All-source RFPs, and it would not be proper to evaluate the Renewable RFP bids under the later gas forecasts.

19. We agree with Public Service that a hindsight comparison of the Renewable RFP resources with the All-source RFP resources is improper. While we appreciate Staff's efforts to protect the integrity of the least-cost procurement policy, a hindsight analysis would not be consistent with the prudence standard in Rule 3613(d). Though the prudence standard could be properly applied in a subsequent cost recovery proceeding under Staff's approach, it is still improper to compare the Renewable and All-source RFP bids to determine whether the burden shift applies. We therefore agree with Public Service that we should either deny the separate Renewable RFP or approve it without the hindsight analysis proposed by Staff. We conclude that Public Service has justified its proposal for a separate and expedited Renewable RFP. Further, Dr. Schmitz's proposed comparison of the two sets of bids without the shift in burden of proof contemplated by the Rules would have little value, as we would not implement any change based on the results (given the information available at this time). We therefore decide not to require the after-the-fact comparison suggested by Staff.

20. We find that Public Service's proposal (to accept only bids in the Renewable RFP that lower rate impacts) is quite likely to result in resources that would be a part of a least-cost portfolio if Public Service issued a single All-source RFP. In an All-source RFP, the renewable bids would have to be only as inexpensive as the highest accepted bid. It is highly unlikely that the most expensive resource accepted in an All-source solicitation would lower average rates,

especially when significant capacity is needed. Further, Public Service proposes to assign no capacity value to resources under the Renewable RFP (although it proposes to use a small portion of such capacity to meet system requirements in the All-source evaluation). Lastly, the renewable resources help provide a hedge against price volatility, as they are not affected by fuel cost changes. This benefit is not considered in the evaluation. We recognize that Public Service could theoretically select uneconomic resources bid under the separate Renewable RFP. However, we find that the conservative rate reduction criteria and the decision to ascribe no capacity value to the selected resources adequately offset this risk. Non-optimal resources that reduce rates are still better than requiring all resources to be evaluated together and potentially losing the substantial benefit conferred by the PTC.

21. The potential to reduce rates and decrease price volatility, while reducing the consumption of natural gas – whose supply limitations have caused severe price increases – warrant special treatment of the least-cost resource evaluation in the LCP Rules. We firmly uphold the least-cost policy established in the LCP Rules. We find that Public Service's proposed Renewable RFP contains adequate safeguards to ensure that a least-cost portfolio can be obtained in this case. The separate renewable solicitation only accommodates a necessary difference in resource timing, while providing a flexible structure to capture potential benefits to consumers. Because Public Service's proposed separate Renewable RFP does not meet the letter of the LCP Rules, we grant Public Service a rule variance in this docket to allow a separate review of bids without an All-source solicitation. A departure from the LCP Rules is appropriate in this case based on the unique and extraordinary circumstance of the expected limited extension of the PTC.

22. Boulder witness Busse states that Public Service's proposal to evaluate bids on whether the portfolio reduces energy rates is not in compliance with the LCP Rules. Instead, Boulder argues that Public Service should grant a preference to renewables, including small hydroelectric generation. Consistent with the above discussion, we deny Boulder's request to evaluate bids received under the separate Renewable RFP based on least-cost NPV of rates, rather than the rate reduction criteria proposed by Public Service.

E. Requirement to Evaluate All Bids Together if PTCs are Extended Beyond 2006, and Status Report Requirement.

23. Several parties recommended that if Congress extends the PTCs beyond December 31, 2006, Public Service should evaluate the bids received under the Renewable RFP with those received under the All-source RFP. Public Service does not oppose this suggestion if the deadline established in the legislation allows for this.

24. During closing arguments the Commission asked Public Service when in the process is the last possible time to determine whether it will evaluate the renewable bids separately from the All-source bids due to the current uncertainty surrounding the PTCs. The Company explained that in order to evaluate all bids at once it would need to know, prior to the conclusion of the negotiation process with successful renewable bidders, that the PTCs expire December 31, 2008 (or later).

25. Using the milestones the Company provided, we calculate that by the end of April 2005 Public Service should be near the end of its negotiation process for renewable resources. As such, we require Public Service to evaluate the renewable and All-source RFP bids together if Congress extends the PTCs to at least December 31, 2008, but only if the law extending the PTC is passed on or before April 29, 2005. We also require Public Service to file a

status report by May 16, 2005, indicating the status of the PTC legislation and whether the Company intends to model all bids within the All-source docket.

F. Gas Price

26. For bid evaluation purposes, Public Service proposes to use an average of natural gas prices forecast by Cambridge Energy Research Associates (CERA), PIRA, NYMEX, and the Energy Information Administration (EIA) for Henry Hub, Louisiana, and proposes to apply a basis differential to adjust the average prices to reflect the local market in Colorado.

27. The OCC recommends that Public Service evaluate wind bids using gas prices of $4.00 and $5.00 per MMBtu, in order to determine how the sensitivity of gas prices affects resource selection. CCNET witness Andrews states that sustained high gas prices are predicted, and argues that Public Service's use of $3.00 per MMBtu in bid evaluation is low. He recommends using $4.50 to $7.50, or a single number of $5.50 per MMBtu to evaluate bids. Andrews agrees that CERA, PIRA, and NYMEX provide good forecasts. He states that EIA has not provided reasonable forecasts, and argues that Public Service should use NPC instead.

28. In rebuttal, Company witness Haeger first clarifies that Public Service is not proposing to use a fixed dollar amount for future gas prices in evaluating bids, but instead proposes a methodology that averages the prices forecast by CERA, PIRA, NYMEX, and EIA at the time the bids are evaluated. Witness Haeger agrees that the short-term forecasts by EIA have not been very accurate, but states that the long-term EIA forecasts have been more reasonable. He recommends including the EIA forecast because the long-term forecasts will apply in the Renewable RFP bid evaluation. Public Service disagrees with setting a fixed dollar gas price because the methodology it proposes should provide a better assessment of prices at the time bids are evaluated.

29. We agree with Public Service that a gas price methodology that uses an average of professional forecasts that are determined at the time Public Service evaluates the bids will likely provide a better market assessment than could be achieved by the Commission setting a fixed gas price. We therefore reject the proposals by OCC and CCNET to use fixed dollar amount(s) for bid evaluation.

30. EIA has clearly missed the mark with many of its short-term forecasts. On one hand, inclusion of the EIA forecast may provide a different perspective that could improve accuracy over time. On the other, we would prefer to use forecasts that reflect a timely response to market changes. On balance, we believe that the inclusion of EIA could have value, by increasing the diversity and number of inputs. Therefore, we approve the methodology as set forth by Public Service, using forecasts by CERA, PIRA, NYMEX, and EIA.

31. Public Service also proposes to use a 2 percent escalation factor for gas prices. Because ancillary costs are also escalated at the same 2 percent rate, and because no party objected to this factor, we approve the 2 percent escalation rate.

G. Curtailment

32. In its supplement to the application filed on June 4, 2004, Public Service proposes to accept bids even if transmission constraints within its system require it to curtail deliveries; the Company would pay the producer for the curtailed energy, as long as the overall economics are projected to result in reduced rates. Public Service proposes to include the estimated curtailed energy payment and PTC reimbursement to the wind producer, and the replacement energy costs in the bid evaluation. Staff witness Dominguez proposes that the Commission require Public Service to file a detailed plan showing how it will determine and recover curtailment costs.

33. In rebuttal testimony and in hearing, witness Hyde states that Public Service's curtailment proposal will help to evaluate intermittent resources because the transmission facilities likely required for resources in the All-source solicitation would not be known at that time. Ms. Hyde further states that the curtailed energy payments to the producer can be accurately determined, but replacement energy will come from a pool of resources and the cost attributable to the curtailment cannot easily be determined.

34. At hearing, CF&I stated that the Commission should reject Public Service's proposal for curtailment payments. On this issue, CEC provided a stipulation that it entered into with Public Service. Under the stipulation, Public Service would include in its report required under Rule 3614(b)(iii) (following the selection of winning bidders from the Renewable RFP), its annual projection of curtailment payments, along with payment assumptions and how they applied to the bid selection analysis. Public Service also would include its proposed transmission upgrades, in-service dates for these upgrades, and an explanation of why it would be cost effective for any curtailments to continue after the transmission upgrades are complete. Lastly, Public Service agrees to include its estimated curtailment costs in resource evaluation, and report on actual curtailment payments as part of any filings done to recover such payments.

35. We find that Public Service's proposed curtailment policy will likely benefit consumers, if a resource will lower rates when all estimated curtailment related costs are properly considered in the evaluation. We agree with Staff and CEC that curtailment information will be essential to ensure that Public Service implements the curtailment process in a reasonable manner. It is vitally important to include all relevant curtailment and replacement energy costs in the resource evaluation. Therefore, we adopt the stipulation proposed by CEC, and find that Public Service's proposal to include curtailment payments will likely result in lower rates to

consumers. We also grant Public Service's request to recover prudent curtailment costs in the same manner that it recovers the associated energy costs.

H. Contract Term Length

36. Public Service requests bids in terms from 5 to 30 years, but encourages shorter term lengths. OCC witness Dr. Schechter recommends that Public Service require bids in a variety of contract term lengths from 5 to 30 years. Dr. Schechter states that bidders should be able to bid a lower price over a longer term, but a range of terms would allow full calculation of consumer benefits.

37. In rebuttal testimony and at hearing, witnesses Hyde and Eves state that Public Service's primary consideration in bid evaluation is the least-cost criterion. While Public Service encourages bidders to provide shorter contract term lengths, Public Service will select resources based on NPV of rate impacts, regardless of term length. The Company encourages shorter-term length contracts so it can take advantage of possible technological advances in wind turbine design that it believes will allow lower wind production costs in the future. Public Service also states that evaluating multiple bid terms, as recommended by OCC, would be burdensome.

38. We agree with Public Service that shorter contract terms could be beneficial to consumers, as technological advances may reduce wind production costs in the future. However, we find that, while Public Service can encourage shorter term bids, it must select resources based on NPV of rate impacts, regardless of contract term length. Because term length is not used to select resources, we deny the OCC's proposal to require bidders to submit a variety of term lengths. Bidders are in the best position to develop the optimum term length in their submitted bid.

I. Requirement for Rate-Based Utility Wind Generation

39. Public Service does not propose to build rate-based wind generation facilities. OCC witness Dr. Schechter recommends that the Commission require Public Service to consider rate-based wind generation to compare with solicited bids to see if they are reasonable. Dr. Schechter proposes that Public Service should construct its own wind generation instead of more expensive bids, or add to the bid resources if bids for the full 500 MW are not received. At the hearing, the OCC also suggested that Public Service could purchase a developed wind farm.

40. Public Service witness Eves states that the Commission thoroughly addressed the rate-based utility-build requirement in Decision No. C02-793 (decision adopting LCP Rules), and rejected OCC's proposal at that time. Further, Public Service states that this is a rulemaking issue, and Public Service should not be expected to implement such a requirement without time to plan for a self-build option. Decision No. C02-793, Paragraph 16, in Docket No. 02R-137E provides a detailed discussion of the problems associated with the utility self-build requirement:

> Consistent with its arguments in Public Service's most recent IRP proceeding, the OCC proposes that utilities be required to bid a set of rate-based, utility-built resources in their least cost plans. The OCC argues that a utility self-build option may be cheaper because of capital costs and amortization period differences between the utility and competitive providers. The OCC asserts that a self-build comparison is necessary to provide consumers the lowest reasonable rates. Other parties argue that the self-build option will add unnecessary expense, and may threaten the competitive bidding process. They state that risk differences between a utility plant and a power purchase contract result in an improper cost comparison.
>
> We agree with Public Service that risk allocation differences between a utility plant and a power purchase contract are significant. Risks associated with cost over-runs, plant inefficiency, operating costs and technological obsolescence would likely be different between the two options. The cost differences associated with these risks would be difficult to quantify, and would, therefore, limit the usefulness of the resource cost comparison. We also agree that a utility self-build option would be expensive, as the utility must stand ready to build the plant if it has the winning bid. Further, we agree that a utility's securing of resources such as land and generating equipment would impact the competitive

> environment, because these resources are limited. Competitors may also view these utility sunk-costs as a disincentive to the utility to choose a competitor's resource over its own. Consequently, competitors may choose not to bid. We find that the costs of a requirement that utilities bid a set of rate-based, self-build, resources outweigh the benefits. While the rules do not prevent utilities from choosing to pursue such options, we do not require utilities to develop rate-based, self-build options with which to compare competitive proposals. Furthermore, the underlying premise of the OCC's argument appears to us discredited. The premise of the OCC's argument would appear to be that generation remains a natural monopoly, thus making the least cost option inevitably the vertically integrated utility. That may have once been the case, but the general consensus now is that this is no longer so. We believe the best public policy is to affirm our dedication to a competitive wholesale generation market, without the regulatory overhang of forcing a comparison to rate-based, integrated-utility operated generation. A policy of competitively-procured generation will not only give ratepayers the least-cost alternative, but also encourages innovation and efficiency by generators, as well as shift risks of "mistakes" to generators instead of ratepayers.

41. We agree with this analysis. Further, we agree with Public Service that the LCP Rules do not require the regulated utility to compare bid resources with a utility-built, rate-based proposal, and to require it now would not provide adequate time to develop such resources. However, the rules do not preclude the Company from proposing such facilities. It is reasonable to expect that Public Service, through its management discretion, will investigate and make rational business decisions in considering whether to propose such facilities as part of the LCP process. The Company is in the best position to make this decision, and a Commission requirement here would not be appropriate. Therefore, we reject OCC's recommendation to require a utility self-build option.

42. With respect to OCC's suggestion that Public Service purchase a developed wind farm, we also leave such a possibility to the discretion of the utility, as it is in the best position to evaluate the potential benefits and risks of such a transaction.

J. Bid Fees

43. CCNET witness Covert proposes to eliminate the $60,000 bid fee associated with a 30 MW community-based wind project. He believes that bid fees should be recognized by Public Service as a cost of doing business. Company witness Hyde clarifies that the bid fee for a renewable project is capped at $2,000 for all projects over 20 MW.

44. We note that the other bid fees for renewable projects are $500 for projects less than 2 MW and $1,000 for projects between 2 MW and 20 MW. By contrast, the proposed bid fees for dispatchable resources are $1,000 for projects less than 2 MW, $3,000 for projects between 2 MW and 20 MW, and $5,000 for projects over 20 MW.

45. We find that the proposed bid fees for renewable projects are reasonable and should not be absorbed by Public Service as a cost of doing business.

K. Security Fund Requirements

46. CCNET witness Osborn states that the proposed security fund should be based on the size or type of project and questions whether a security fund is even necessary.

47. Public Service responds that the security fund is necessary to protect ratepayers and the Company should the project not come online. Company witness Hyde explains that once a signed contract exists, the Company has the expectation that the project will provide reduced energy costs for the system. However, if the project fails to come online the Company would be placed in the position of replacing the expected energy with likely more expensive power. Finally, the Company notes that the RFP allows bidders to propose variations to the Model contract if it reduces the price of their bid and a lower security fund requirement would be one option for bidders.

48. We conclude that a security fund should be required on all selected projects. The Commission notes that the security funding requirement for renewable resource is lower than a dispatchable resource ($75/kw vs. $125/kw) and the security fund requirement can be met in ways other than actual cash expenditures, for instance a line of credit or a third party guarantee. Consequently, we find that the proposed security fund requirements are reasonable.

L. Environmental Protection Agency Phase I Environmental Assessment

49. Mr. Osborn contends that it is unnecessary to require wind bidders to complete a full Environmental Protection Agency (EPA) Phase I environmental site investigation to confirm that no environmental contamination exists at or under the site. He believes this requirement provides no meaningful benefit to ratepayers.

50. Public Service responds by clarifying that the EPA assessment is a requirement of any future purchase power contract, not part of submitting a bid. The Company notes that the Model contract allows it to "step in" and take over ownership of the facility in the event of default. Company witness Hyde states that Public Service wants to ensure it is not taking on unexpected environmental clean-up costs. As such, this requirement represents a proper level of due diligence.

51. The Commission finds that the proposed requirement for an EPA Phase I environmental assessment for all winning bids is reasonable. We agree that it is a proper level of due diligence and in both the Company's and ratepayers' interest.

M. Bidder to Demonstrate Previous Successful Project Development

52. CCNET witness Osborn argues that the bid evaluation criterion that requires demonstration of previous successful development and commencement of similar projects is a

barrier to entry. As an alternative, he suggests that smaller project developers be allowed to provide equivalent evidence of stability and capability.

53. Company witness Hyde believes it prudent to include this requirement because assembling a team of qualified individuals to develop the project is one way to assure that the project comes online. She notes that the RFP does not require that every development team member individually demonstrate this kind of experience. She suggests that entities without experience developing power plants could bring on team members who do have such experience through either consulting or partnering arrangements.

54. We accept the Company's proposal. Requiring prior experience in developing power plants is not an unreasonable barrier to entry as suggested by CCNET. We concur that an experienced development team has a greater chance of delivering and completing a project in a timely and efficient fashion.

N. Treatment of Green Credits

55. Witness Covert suggests that developers of wind projects be able to retain associated "Green Credits." He contends that retaining Green Credits will enhance the character of community-based renewable energy organizations.

56. Under the proposed Model contract contained in the RFP, Public Service requires that any Green Credits be transferred to it as part of the purchase of renewable energy. Company witness Hyde notes that currently there are no rules or guidelines defining Green Credits or addressing the implications of separating them from the purchase of energy. Notwithstanding that fact, Public Service cites additional reasons why the Company, as the purchaser of renewable energy, should receive the Green Credits. First, if approved by voters, the November 2004 ballot initiative for a renewable portfolio standard would allow the Company to

meet its renewable portfolio obligation by the purchase of tradable renewable energy credits. Second, treating all bids with Green Credits the same allows for a better "apples-to-apples" comparison; otherwise, the Company would have to subjectively value them in order to accurately compare competing renewable bids.

57. The Commission agrees that, in order to accurately compare competing bids, Public Service should receive any Green Credits associated with any winning bid. By requiring all bids to include the transfer of the Green Credits, Public Service will not have to subjectively value such credits. Furthermore, as to any future expected use or value of Green Credits, it appears reasonable that the Company (and, by extension, its ratepayers), as the purchaser of the output from the renewable facility, should receive their benefits since it enabled the project to be developed.

O. Standardized Interconnection Procedures

58. CCNET witness Cox believes that by establishing standard procedures and interconnection agreements it could alleviate a burden on bidders.

59. Public Service believes CCNET's concerns are targeted to other utilities in Colorado. The Company contends its Model contract goes a long way to having a simple "fill-in the blank" type contract.

60. We agree with Public Service that its Model contract is straightforward and should not present a burden on bidders for interconnection agreements and procedures.

P. $2.50/MWH Ancillary Cost for Intermittent Resources

61. Public Service proposes to use a $2.50/MWH ancillary cost estimate in the evaluation of intermittent resources. According to Company witness Hill, the $2.50 estimate reflects ancillary service costs based on a recent study conducted for Xcel Energy which

simulates the introduction of wind into a utility system comparable to the Public Service system. According to the Company, $2.50/MWH is a reasonable estimate for ancillary service costs at wind penetration levels up to 10 percent.

62. CCNET witness Covet thinks ancillary costs are linked to the size of the plant, but presented no proof.

63. We are disappointed that the estimate of ancillary service costs is based on a simulated study of another utility system instead of Public Service's actual system costs.

64. Public Services asks that we rely on the study by Mr. Hirst (which was neither submitted as evidence or even presented by the study author), which apparently is based on Public Service's service territory in parts of New Mexico and Texas. Yet every witness who testified in this issue agreed that ancillary costs associated with intermittent resources will vary based on a number of factors, which themselves will vary depending on geographic area and operating system. We have testimony that the $2.50/MWH figure is good enough up to the 10 percent penetration level; that another study shows an ancillary cost of $5.50/MWH or more at 20 percent penetration; and that Public Service would be "uncomfortable" in relying upon $2.50/MWH beyond 10 percent. All of this means that there is substantial uncertainty about ancillary costs in Colorado at this time, and points out the need for a comprehensive Colorado-specific study (*see* next section for a discussion of such a study). Several parties pointed out that in the 1999 Integrated Resource Plan proceeding the Commission directed Public Service to provide ancillary service cost information for its existing facilities for the next case where such costs are at issue. We acknowledge that Public Service does not have a full year's data for its recently installed 162 MW wind facility near Lamar; however, Public Service should have data for two other wind facilities which represent 60 MW of power. The Commission does not have

adequate information to determine whether $2.50/MWH is a reasonable estimate for Public Service's system on an ongoing basis. We accept the $2.50/MWH estimate for ancillary service cost for the purpose of this proceeding, based on studies of other systems and testimony here that this estimate is reasonable up to the 500 MW cap.[2] The wind studies, discussed below, should assist Public Service in establishing its own ancillary cost figure which could be used for its 2007 LCP.

Q. Wind Studies Stipulation between Staff and Public Service

65. At the hearing, Public Service and Staff submitted a proposed settlement relating to wind studies. They state that the proposed settlement resolves the disputed issues raised in the direct testimony of Staff witness Dominguez and the rebuttal testimony of Company witness McGree. Under the settlement, Public Service proposes to: 1) estimate the ancillary service costs of 720 MW of nameplate wind based on its 2007 peak demand (this would represent a wind penetration rate of 10.1 percent); 2) estimate the ancillary service costs of a quantity of nameplate wind at a penetration rate of 15 percent based on its 2007 peak demand, or the best available peak demand forecast at the commencement of the study; 3) perform power flow and stability analyses, using 2007 power flow cases, of the portfolio of resources selected by the Company in response to the Renewable RFP approved in this case; 4) develop written operating procedures or practices to maintain compliance with North American Electric Reliability Council and Western Electric Coordinating Council reliability practices and standards. The Company states that it will use its reasonable best efforts to complete all studies, analyses, and

[2] Specifically, we allow the use of $2.50 mwh ancillary cost for use in evaluating bids because: (1) the PTC benefits are so large; (2) $2.50/mwh is a small percentage of the total cost per mwh; (3) $2.50/mwh is reasonable up to 10 percent penetration, and this docket caps Public Service's renewable energy limit at 500 MWs; and (4) there is no time to develop a good, comprehensive ancillary cost study in time to take advantage of the PTC.

development of written operating procedures or practices by April 1, 2006. The settlement also allows the April deadline to be extended by an additional year, if necessary.

66. Based on questions of the Commission at the hearing, the parties to the settlement agreed to modify the settlement to require Commission approval should any extension of the deadline be sought. We accept the stipulation with the requirement that Public Service request permission from the Commission to extend the deadline. Further, the Commission directs Public Service to investigate, based on the data it compiles for the ancillary cost studies, whether ancillary costs vary by geographic region within the State (*e.g.*, in the Northeast and Southwest corners) and how the size of a wind facility impacts the ancillary costs. In addition to possible differences in ancillary costs based on geographic location of a wind facility, the Commission wishes to learn whether ancillary costs remain nearly the same for different sized facilities within certain ranges. The Commission will not specify the range, but instead instructs Public Service to examine the data to determine if it is appropriate to assume different ancillary costs depending upon size and geographic region, instead of assuming a system-wide figure. We note that ancillary costs optimally should be considered on a project-by-project basis to provide an accurate comparison of projects in future RFPs and future LCP dockets. We expect Public Service to develop project size and geographic ancillary cost information to enable such comparison.

67. Certain parties suggested that we require Public Service to expedite operational and ancillary cost studies in the next six months or sooner. We declare to do so. We believe that a useful and accurate study will include one full year’s worth of data from the 162 MW wind project near Lamar, as this is the largest (by far) wind project in Colorado operating within Public Service’s system. Further, the study should analyze the effect of contracted wind bidder

projects (through the Renewable RFP) on Public Service's system, because ancillary costs may vary significantly based on wind penetration level, geographic location, and diversity of wind resources, and these factors cannot be fully considered until Renewable RFP projects are under contract. While we do not and cannot require perfect information, Colorado ratepayers deserve accurate information about how renewable energy affects rates and operational reliability, especially when a penetration level of greater than 10 percent is contemplated.

R. Separate Capacity and Energy Rates vs. Combined Energy Rate

68. According to the OCC, there are three problems with energy-only bids: 1) it is not economically rational for a resource whose costs are almost entirely capital costs to be bid in an energy-only manner; 2) energy-only bids shift risks to bidders and they will reflect that increased risk in higher bid prices, which ultimately get passed on to ratepayers; and 3) an energy-only bid requires a "take-or-pay" contract. In light of these concerns, Dr. Schechter recommends that Public Service use a traditional capacity/energy payment structure for renewable resources.

69. The Company argues that a capacity/energy payment structure could result in payments to a wind facility even if the wind does not blow. This could lead to developers proposing projects not located in viable wind locations. Public Service also believes that the 85 percent/115 percent band for full payment to wind facilities will help prevent possible gaming while providing proper incentives to the bidders (*e.g.*, maintaining equipment in good working order and accurately estimating wind generation).

70. We are not persuaded that the proposed energy-only payment should be changed to a capacity/energy payment arrangement. We agree with Public Service that a capacity/energy payment may lead to developers (who have better access and incentive in developing bid-related

information) proposing projects in areas which are not optimally located in order to secure a large fixed payment. Thus, it is not evident (without supporting empirical evidence) that a capacity/energy payment is likely to result in lower rate impacts to Public Service's customers. Further, we are not convinced at this time that we should deviate from the industry standard of an energy-only payment. We do not see any unique circumstances related to wind projects in Colorado that would suggest we change payment arrangements.

S. Senate Bill 04-168

71. Both RM Farmers Union and CCNET advocate preferential treatment for community-based renewable energy projects.

72. Public Service believes that the LCP Rules do not allow for a price premium for renewable resources. Company witness Hyde finds no mandate in Senate Bill 04-168 (SB04-168) that the Company purchase from these facilities at higher rates or outside of the Commission's established LCP process. Public Service does not believe that the Commission should encourage uneconomic purchases, but if the Commission determines that this is in the public interest the Commission should provide for the associated cost recovery.

73. We agree with Public Service that SB04-168 does not require preferential economic treatment for community-based projects. The goal of our LCP Rules is to have a portfolio of resources that produce the lowest rate impacts on ratepayers on a NPV basis. We believe that a preference for community-based projects would violate the least-cost goal. The Commission's modification to the wind studies, discussed above, will help to determine if small projects have certain cost-based differentials. If such differentials exist, this could lead to lower bid prices for future small wind projects, all other things being equal.

T. No $2.50/MWH ancillary cost for non-intermittent resources

74. CCNET witness Muzzy stated that there is no logic in charging the $2.50/MWH ancillary costs to non-intermittent resources. In her rebuttal testimony, Company witness Hyde agreed. Therefore, no ancillary costs will be attributed to non-intermittent renewable resources.

II. CONCLUSION

75. Pursuant to the requirements contained in Rule 3613(c), the Commission makes the following findings and conclusions: a) Public Service has presented information to justify the need for 500 MW of renewable resources that reduce the NPV of rates, and the Commission approves such, consistent with the above discussion; b) the Commission approves Public Service's plan for acquiring renewable resources, consistent with the above discussion; and (c) the Commission approves Public Service's proposed Renewable RFP, including the proposed evaluation criteria, consistent with the above discussion.

III. ORDER

A. The Commission Orders That:

1. The application filed by Public Service Company of Colorado for approval of its Renewable Request for Proposals is granted, consistent with the above discussion.

2. The stipulation between Public Service Company of Colorado and Staff of the Colorado Public Utilities Commission relating to certain wind studies is approved, with the modification that Commission approval is required of any deadline extension beyond April 1, 2006.

3. The stipulation between Public Service Company of Colorado and Colorado Energy Consumers relating to wind energy curtailment payments is approved.

4. Public Service Company of Colorado shall investigate, based on the data it compiles for the ancillary cost studies, whether ancillary costs vary by geographic region within the State (*e.g.*, in the Northeast and Southwest corners) and how the size of a proposed wind facility impacts ancillary costs, consistent with the above discussion.

5. Public Service Company of Colorado shall evaluate the Renewable and All-source Request for Proposal bids together if Congress extends the Federal Production Tax Credits to at least December 31, 2008, but only if the law extending the Federal Production Tax Credit is passed on or before April 29, 2005. Public Service Company of Colorado shall file a status report with the Commission by May 16, 2005, indicating whether it intends to model all bids within the All-source evaluation.

6. The 20-day period provided for in § 40-6-114, C.R.S., within which to file applications for rehearing, reargument, or reconsideration begins on the first day following the Mailed Date of this Decision.

7. This Order is effective on its Mailed Date.

B. ADOPTED IN COMMISSIONERS' DELIBERATIONS MEETING August 11, 2004.

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

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Commissioners

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